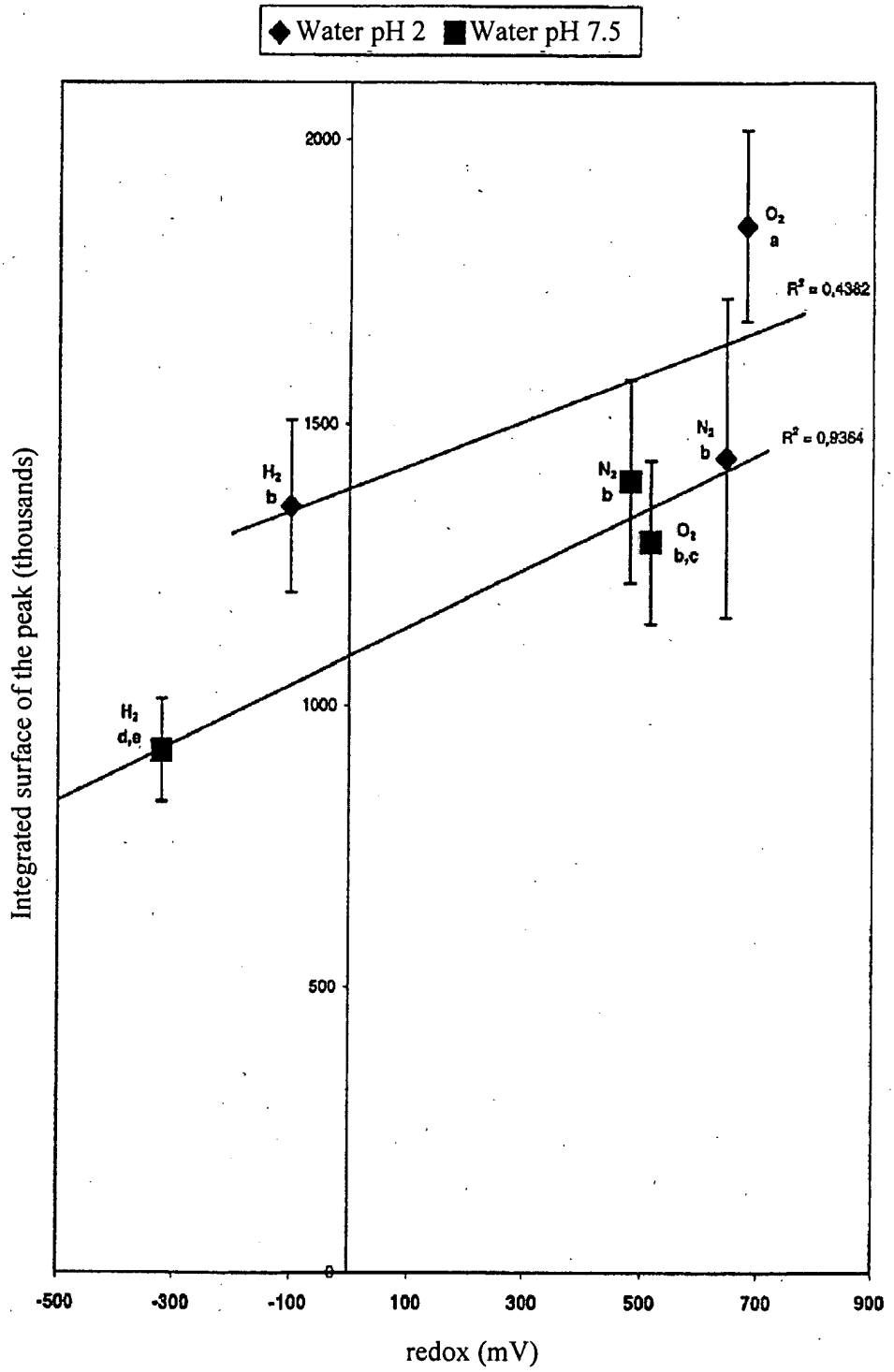
Water pH 2
Water pH 7.5
Integrated surface of the peak (thousands)
redox (mV)
2000
1500
1000
500
0
-500
-300
-100
100
300
500
700
900
O2 a
R² = 0,4382
N2 b
R² = 0,9364
H2 b
N2 b
O2 b,c
H2 d,e

FIGURE 1

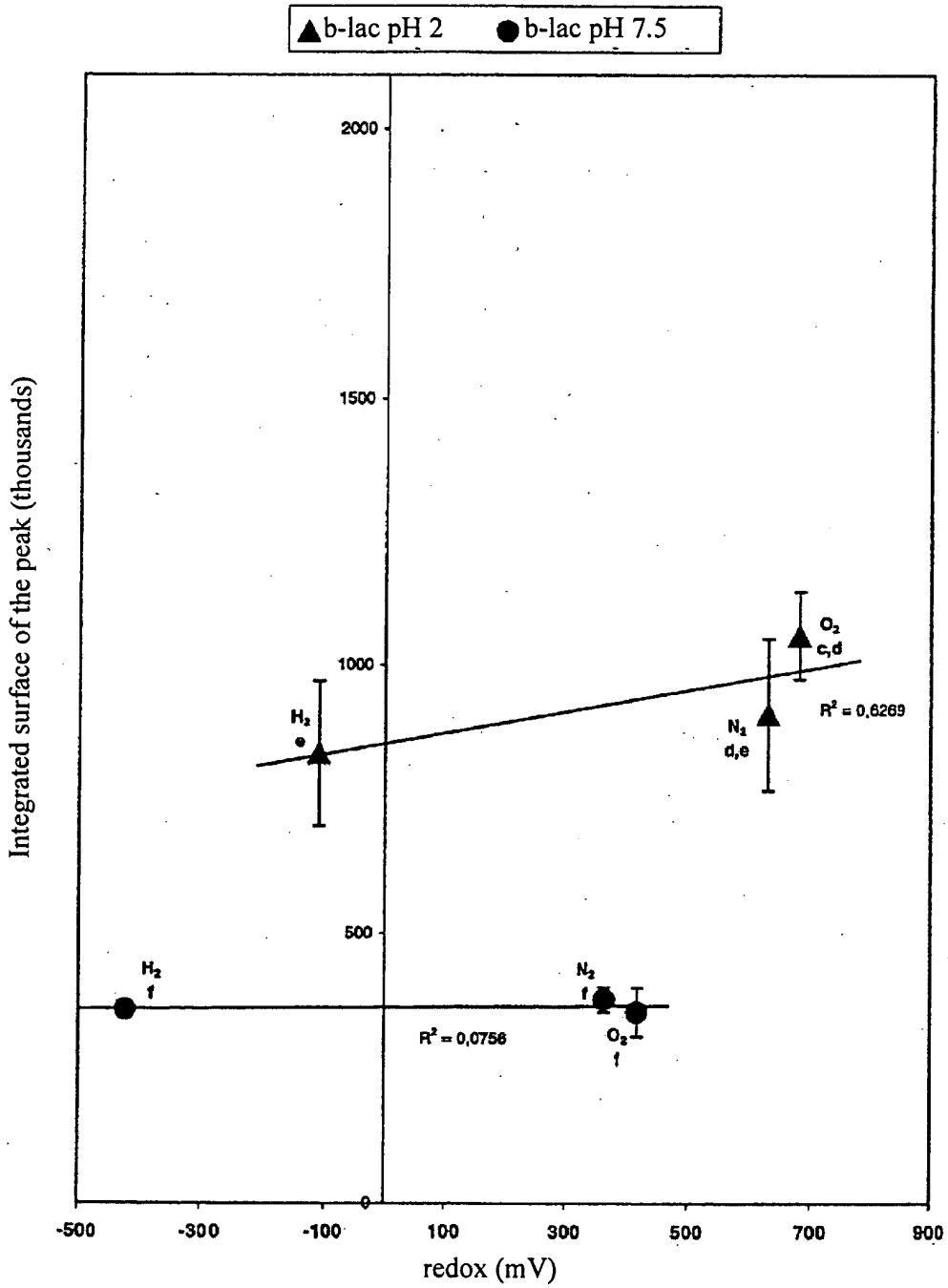
b-lac pH 2
b-lac pH 7.5
Integrated surface of the peak (thousands)
2000
1500
1000
500
0
-500
-300
-100
100
300
500
700
900
redox (mV)
H2 e
O2 c,d
N2 d,e
R² = 0,6269
H2 f
N2 f
O2 f
R² = 0,0756

FIGURE 2

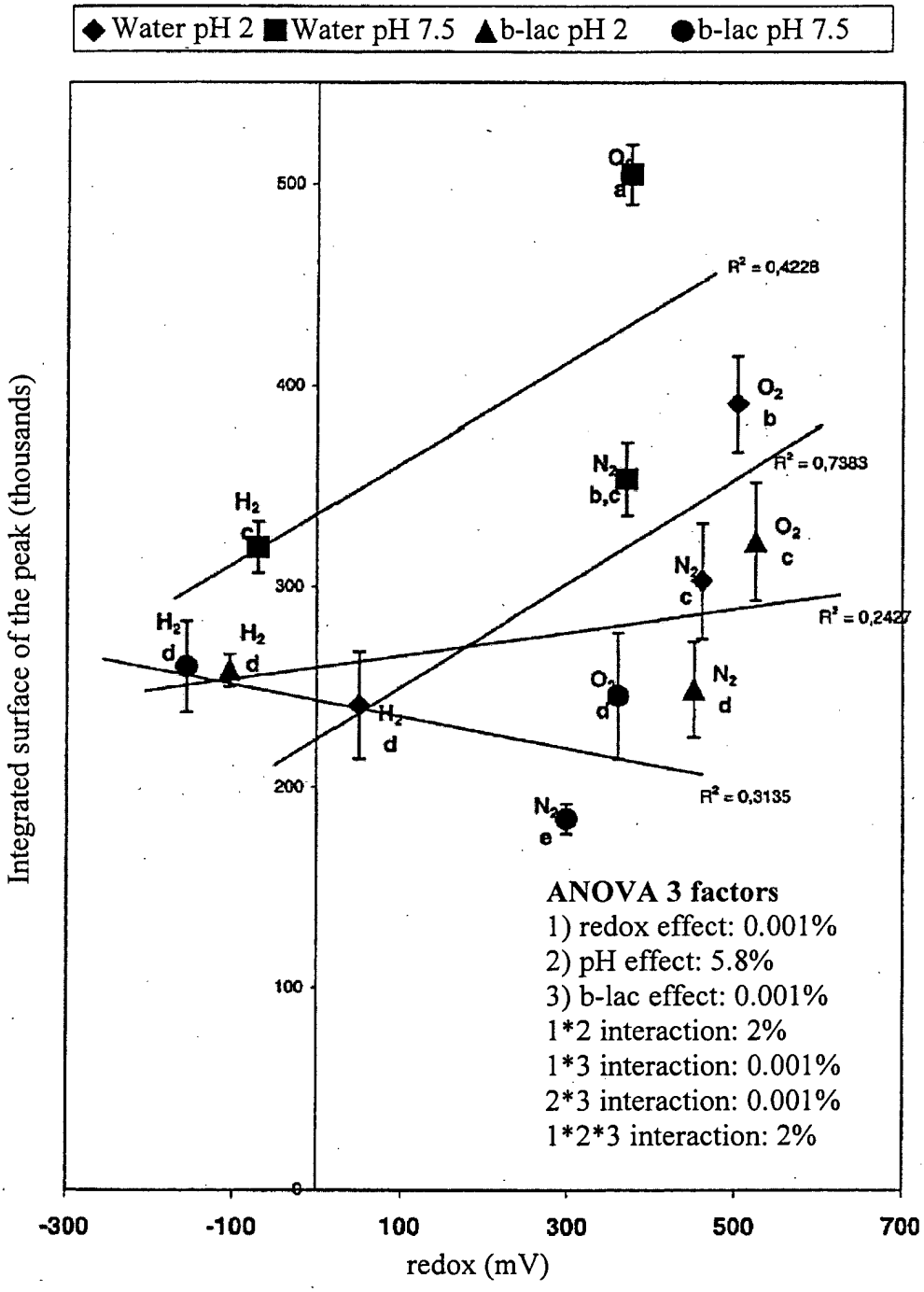
◆ Water pH 2 ■ Water pH 7.5 ▲ b-lac pH 2 ● b-lac pH 7.5
Integrated surface of the peak (thousands)
redox (mV)
-300
-100
100
300
500
700
0
100
200
300
400
500
R² = 0,4228
R² = 0,7383
R² = 0,2427
R² = 0,3135
O2 a
O2 b
N2 b,c
H2 c
O2 c
N2 c
H2 d
H2 d
H2 d
O2 d
N2 d
N2 e
ANOVA 3 factors
1) redox effect: 0.001%
2) pH effect: 5.8%
3) b-lac effect: 0.001%
1*2 interaction: 2%
1*3 interaction: 0.001%
2*3 interaction: 0.001%
1*2*3 interaction: 2%

FIGURE 3

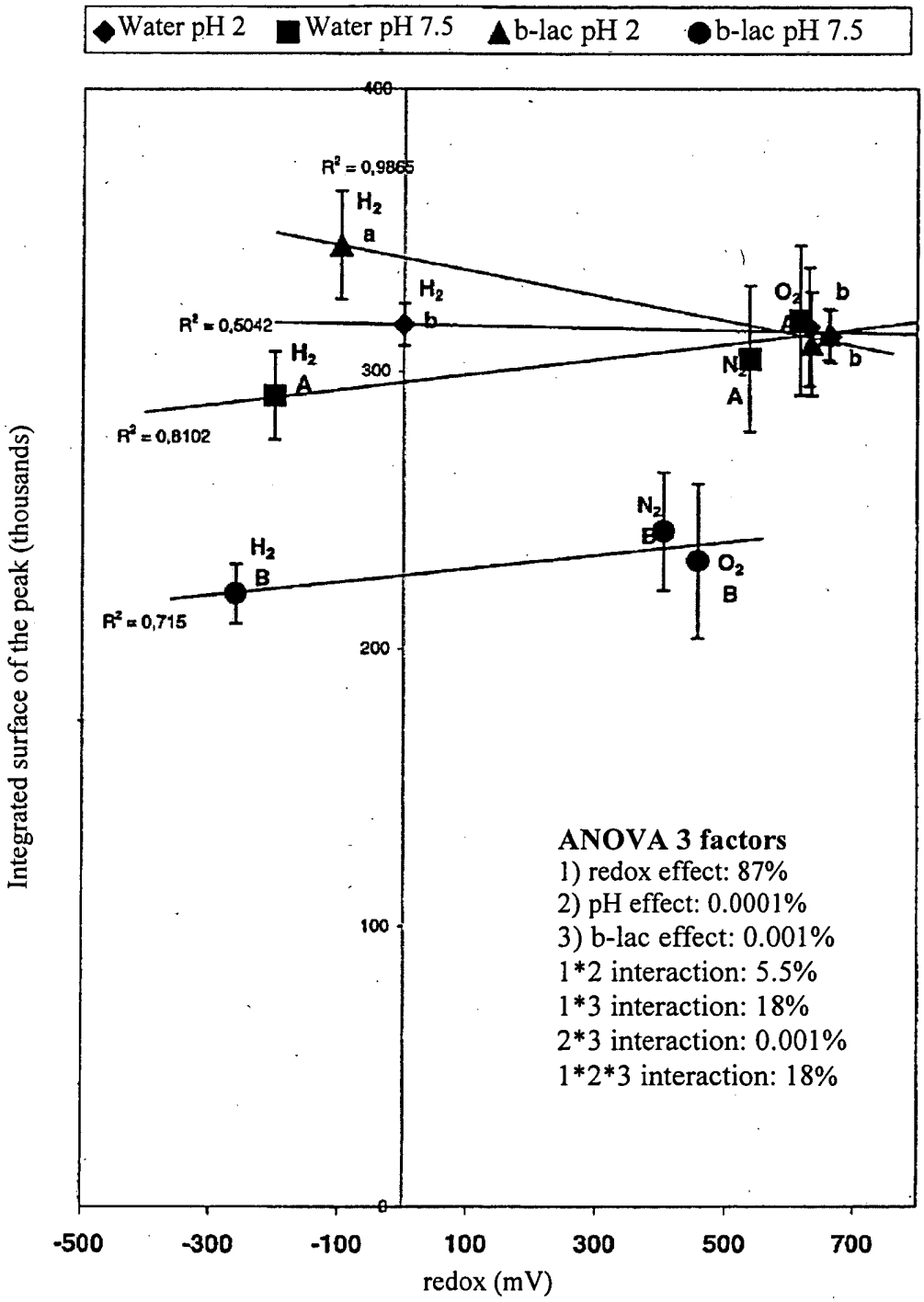
Water pH 2
Water pH 7.5
b-lac pH 2
b-lac pH 7.5
Integrated surface of the peak (thousands)
redox (mV)
R² = 0,9865
R² = 0,5042
R² = 0,8102
R² = 0,715
H2 a
H2 b
H2 A
H2 B
N2 A
N2 B
O2 b
O2 B
ANOVA 3 factors
1) redox effect: 87%
2) pH effect: 0.0001%
3) b-lac effect: 0.001%
1*2 interaction: 5.5%
1*3 interaction: 18%
2*3 interaction: 0.001%
1*2*3 interaction: 18%

FIGURE 4

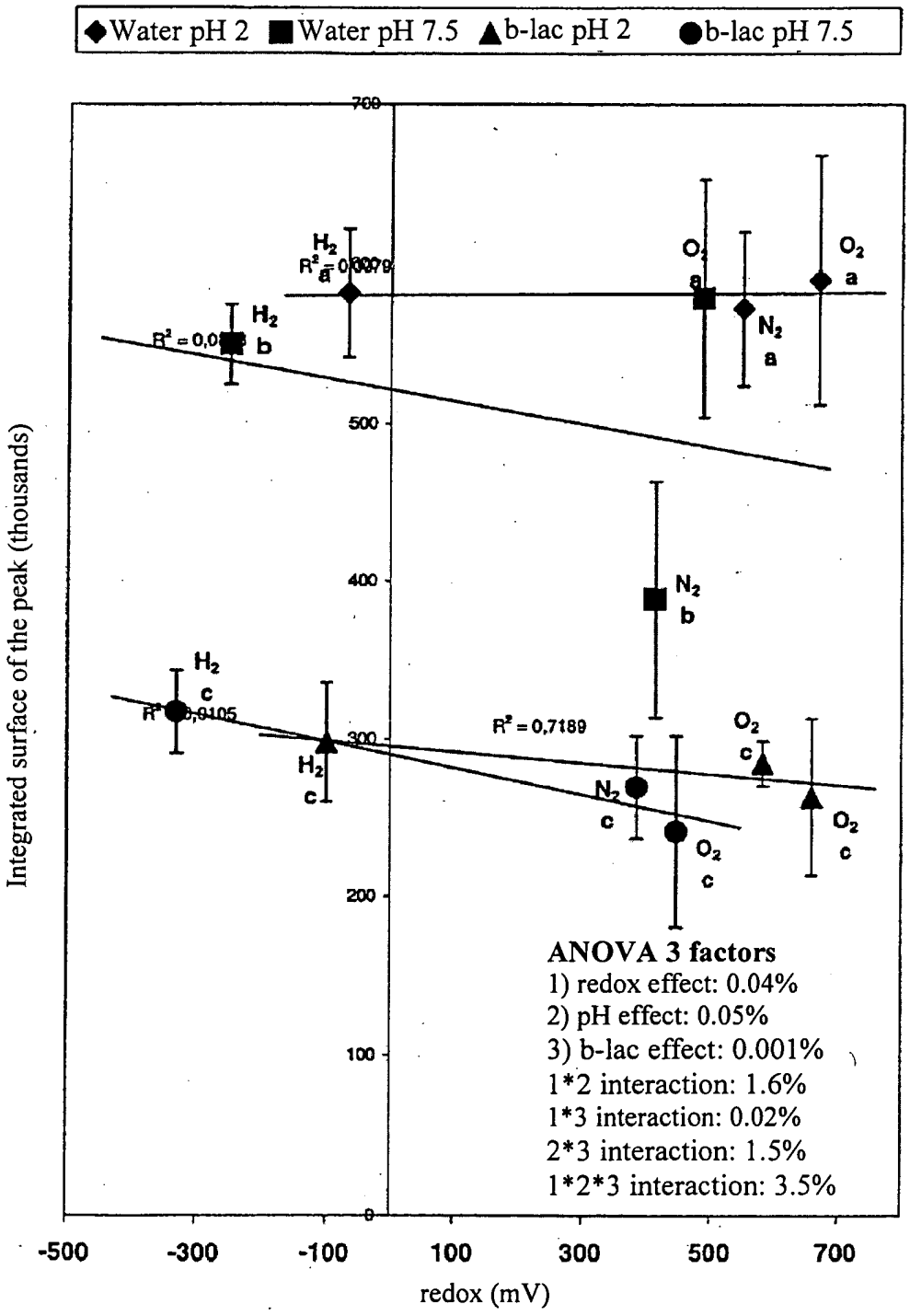
Water pH 2
Water pH 7.5
b-lac pH 2
b-lac pH 7.5
Integrated surface of the peak (thousands)
redox (mV)
700
500
400
300
200
100
0
-500
-300
-100
100
300
500
700
H2 a
H2 b
H2 c
O2 a
N2 a
O2 a
N2 b
R² = 0,7189
O2 c
N2 c
O2 c
O2 c
ANOVA 3 factors
1) redox effect: 0.04%
2) pH effect: 0.05%
3) b-lac effect: 0.001%
1*2 interaction: 1.6%
1*3 interaction: 0.02%
2*3 interaction: 1.5%
1*2*3 interaction: 3.5%

FIGURE 5

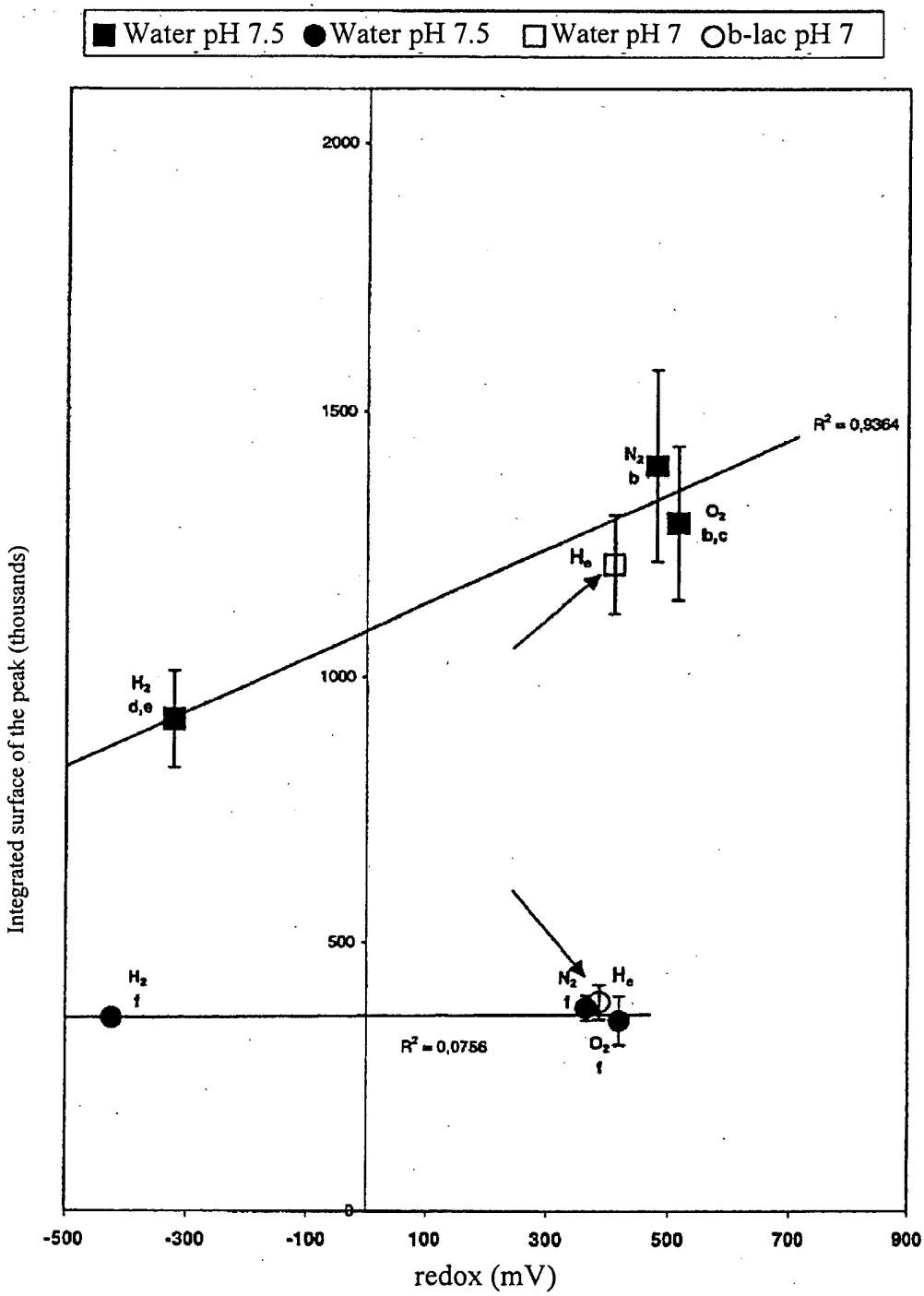
Water pH 7.5
Water pH 7.5
Water pH 7
b-lac pH 7
Integrated surface of the peak (thousands)
redox (mV)
2000
1500
1000
500
0
-500
-300
-100
100
300
500
700
900
R² = 0,9364
R² = 0,0756
N2 b
O2 b,c
He
H2 d,e
H2 f
N2 f
He
O2 f

FIGURE 6

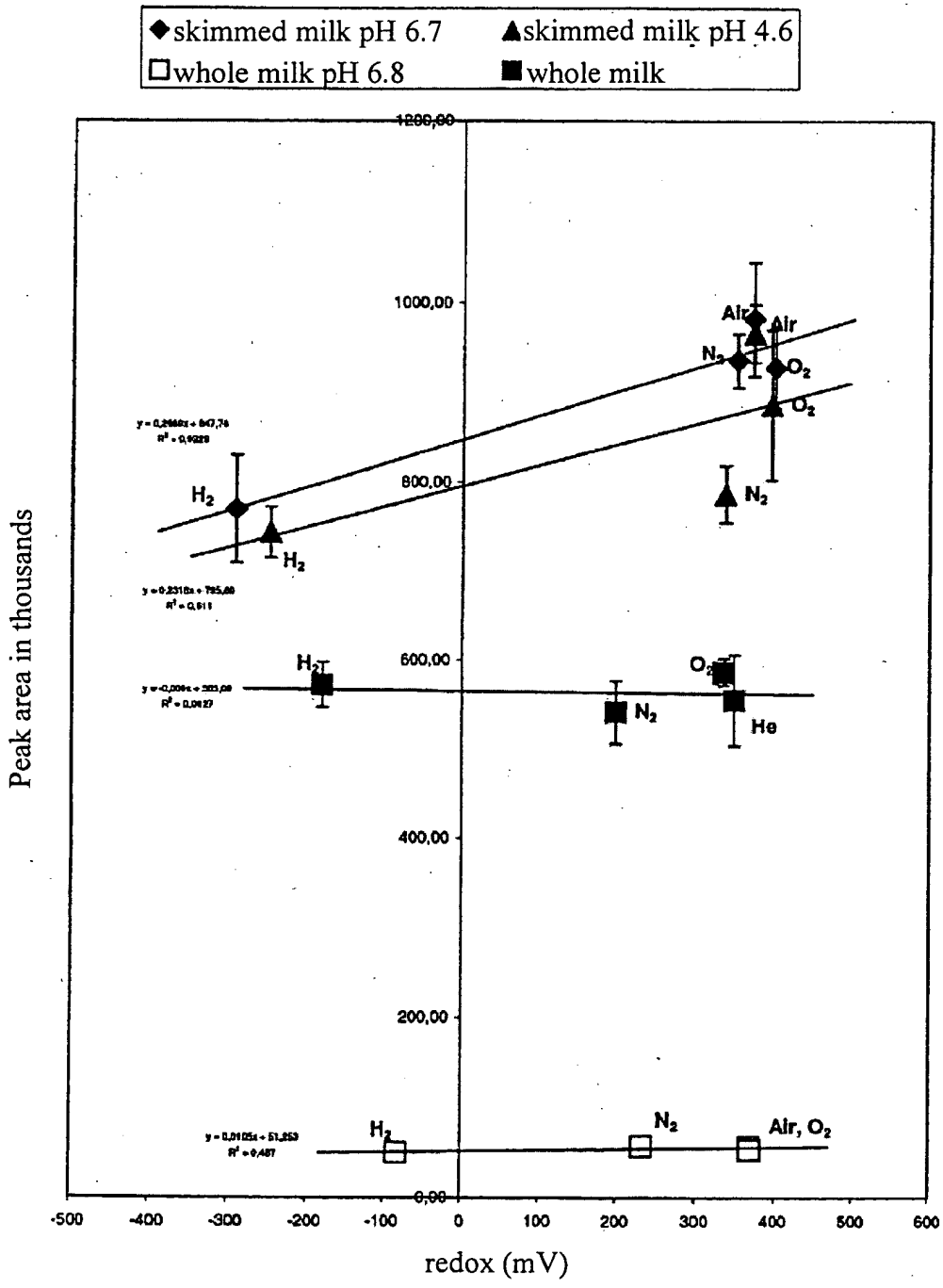
skimmed milk pH 6.7
skimmed milk pH 4.6
whole milk pH 6.8
whole milk
Peak area in thousands
redox (mV)
1000,00
800,00
600,00
400,00
200,00
0,00
-500
-400
-300
-200
-100
0
100
200
300
400
500
600
Air
Air
N2
O2
O2
N2
H2
H2
H2
N2
O2
He
H2
N2
Air, O2

FIGURE 7

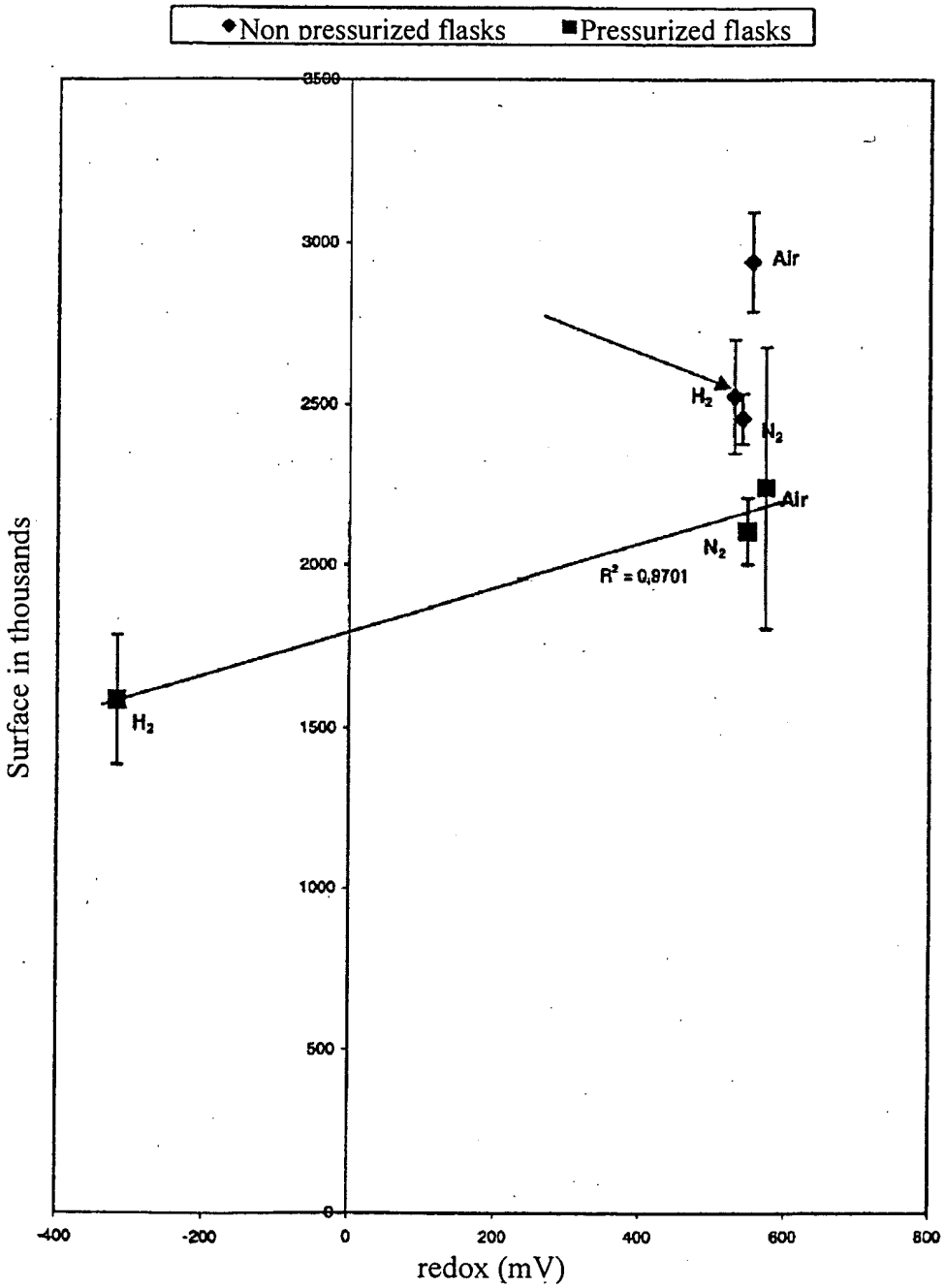
Non pressurized flasks
Pressurized flasks
Surface in thousands
redox (mV)
3500
3000
2500
2000
1500
1000
500
0
-400
-200
0
200
400
600
800
Air
H2
N2
Air
N2
H2
R² = 0,9701

FIGURE 8

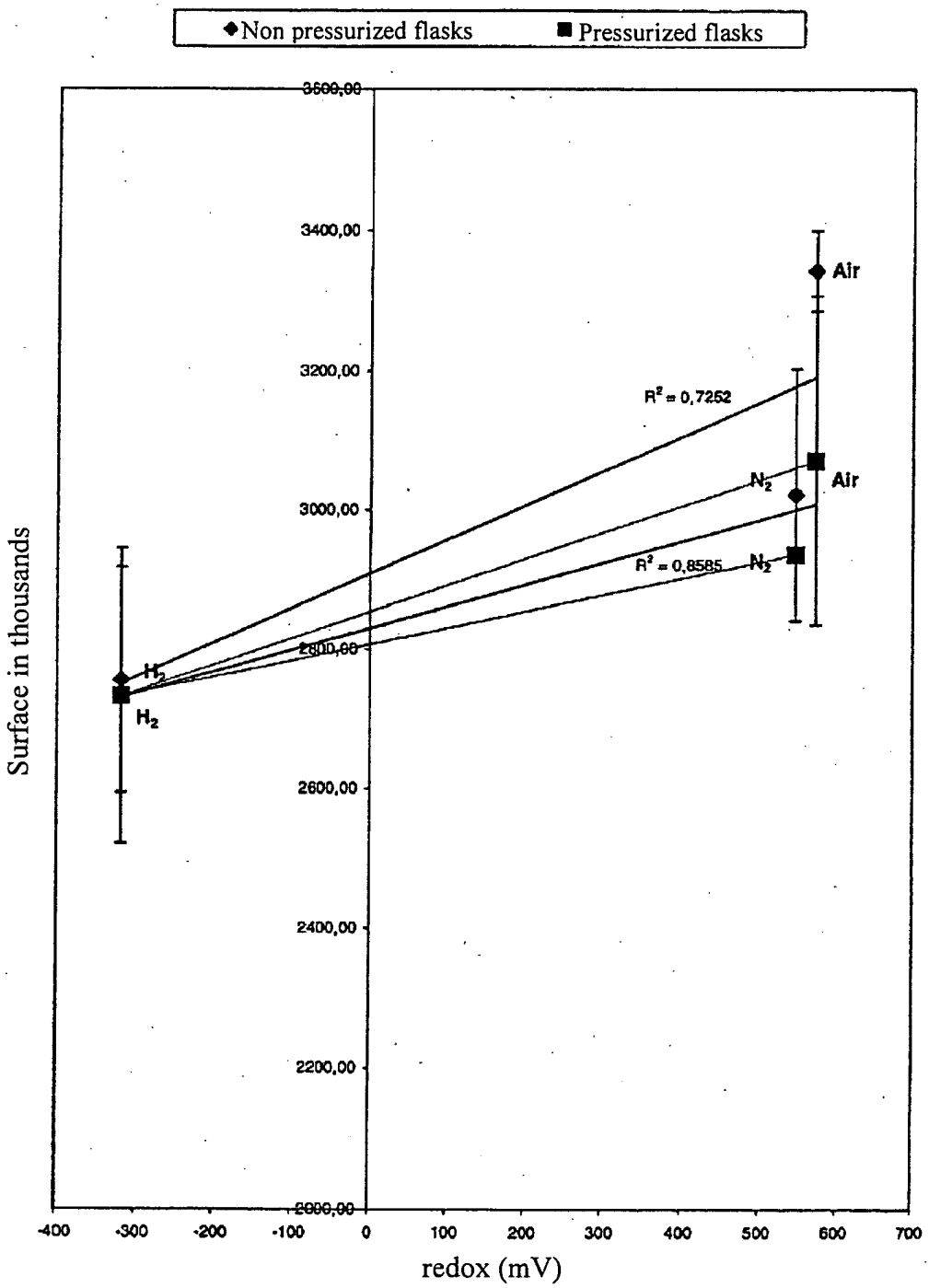
Non pressurized flasks
Pressurized flasks
Surface in thousands
redox (mV)
3600,00
3400,00
3200,00
3000,00
2800,00
2600,00
2400,00
2200,00
2000,00
-400
-300
-200
-100
0
100
200
300
400
500
600
700
Air
Air
N2
N2
H2
H2
R² = 0,7252
R² = 0,8585

FIGURE 9

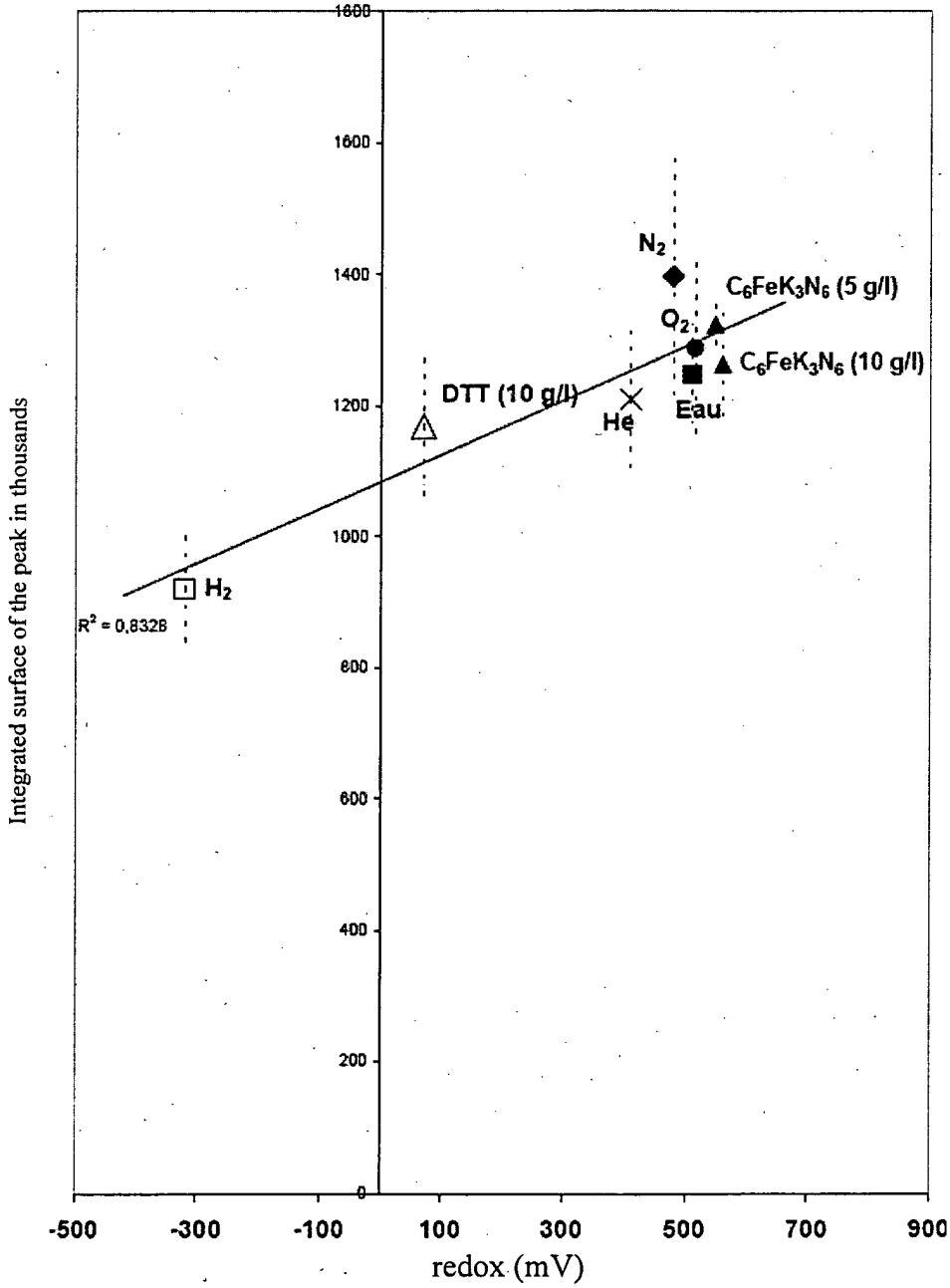
Integrated surface of the peak in thousands
redox (mV)
1800
1600
1400
1200
1000
800
600
400
200
0
-500
-300
-100
100
300
500
700
900
N2
C6FeK3N6 (5 g/l)
O2
C6FeK3N6 (10 g/l)
DTT (10 g/l)
He
Eau
H2
R2 = 0,8328

FIGURE 10